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10/529,638	11/04/2005	Josef Dietl	09282.0058-00	1384
22853 7590 08/28/2009 FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413				
EXAMINER KRETZMER, ERIKA A				
ART UNIT		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/529,638

**Applicant(s)**

DIETL ET AL.

**Examiner**

Erika Kretzmer

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 March 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 and 10-21 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-8 and 10-21 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 14 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☒ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date 3/31/2005  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Status of Claims***

1. This action is in reply to the application filed on March 31, 2005. Amended claims were received on March 31, 2005. Claim 9 was cancelled. Claims 1-8 and 10-21 are currently pending and have been examined.
2. This application claims priority to PCT/EP03/10442 filed on September 18, 2003. This application claims priority to EP 0202204.2 filed on October 1, 2002. A certified copy of the foreign application was received by the Office

### ***Drawings***

3. Original drawing 1 was received on March 31, 2005. Replacement drawing 1 was received on November 14, 2006. Drawing 1 is accepted.

### ***Specification***

4. The disclosure is objected to because of the following informalities: in the specification the term "definition instructions" is used to mean instructions that are both "interfaces" (see page 2, line 2) and "classes" (see page 3 line 14). Similarly, the term "implementation instructions" is used to mean instructions that are both "classes" (see page 2, line 3) and "interfaces." It is unclear which interpretation should be given to the terms. Appropriate correction is required.

***Double Patenting***

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).
6. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.
7. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).
8. **Claims 1-3, and, 12-14**, are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 11 of copending Application No. 10/676825. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are anticipated by the copending claims. For example, the following table compares claim 1 of the present application to claim 1 of the copending application:

Present application (10/529638)	Copending application (10/676825)
<p><i>1. A computer-implemented method for validating computer code, comprising:</i></p> <p><i>providing a computer program by defining</i></p> <p><i>at least one set of implementation instructions</i></p> <p><i>at least one set of definition instructions,</i></p> <p><i>validating the set of definition instructions and the set of implementation instructions using a validation tool</i></p> <p><i>and at least a script code section;</i></p> <p><i>validating the script code section using the set of implementation instructions.</i></p>	<p>1. A method for validating programs, the method comprising steps implemented by one or more computers of:</p> <p>receiving a meta-language description of a computer program, the meta- language description comprising</p> <p>a meta-language definition module and</p> <p>a meta- language implementation module, the meta-language implementation module defining a first class to be implemented by the computer program and the meta-language definition module defining a first interface associated with the class;</p> <p>validating the meta-language description by validating syntax of the meta-language definition module and syntax of the meta-language implementation module;</p> <p>generating a language-dependent program from the meta-language description, the language-dependent program comprising the first interface, the first class</p> <p>and a script code section written in a scripting language</p> <p>performing usage and semantic checks on the computer program by compiling the generated first interface and the generated first class; and performing usage checks on the script code section by extracting language elements from the generated script code section and comparing the extracted language elements with the meta-language definition module used to generate the language-dependent program.</p>

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9. Note that in the present application, the "definition instructions" are defined as "classes" in claims 2 and 3, whereas the "implementation instructions" are defined as "interfaces" in claims 2 and 3. Thus, the "definition instructions" of the present application have an equivalent function to the "implementation module" of the copending application. This inconsistency in terminology is further addressed in a rejection under 35 USC 112, 2nd paragraph, below.
10. Thus, "validating the script code with the implementation instructions," as in the present claim 1, is equivalent to "comparing the extracted language elements with the meta-language definition module", as in the copending claim 1.
11. Claims 12-14 are computer readable medium versions, which recite the same limitations of claims 1-3. The computer readable medium is anticipated by the computer program product of claim 11 of the copending application.
12. **Claims 4-6, 10-11, 15-17, and 20-21**, are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 11 of copending Application No. 10/676825 in view of "Java and XML Data Binding" (McLaughlin, 2002). Although the conflicting claims are not identical, they are not patentably distinct from each other because they would have been obvious over the copending claims in view of the cited art.

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13. As to claims 4, 6, 10-11, 15, 17, and 20-21, in addition to the limitations of the parent claims being wholly anticipated by the copending claims as discussed above, McLaughlin further teaches *the set of definition instructions* ("XML documents") *and the set of implementation instructions* ("XML constraints") *are described in XML* (see at least section 2.3.1, particularly "XML file" and figure 2-2 "XML documents" and section 2.3, particularly "XML constraints"). It is readily apparent that McLaughlin teaches the files are in a tree structure because the files are XML files. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the meta-language instructions of the copending claim 1 with the XML of McLaughlin because XML ("eXtensible Markup Language") is a common type of meta-language.
14. As to claims 5 and 16, in addition to the limitations of the parent claims being obvious over the copending claims and cited art as discussed above, McLaughlin further teaches *the classes and the interfaces are defined in Java language* (see at least section 3.1.4, figure 3-1, particularly: "The result of the generation step is one or more Java source files"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the language-dependent program of the copending claims 1 and 11 with the Java language of McLaughlin because Java is a common language for language-dependent programs.
15. **Claims 7-8 and 18-19**, are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 11 of copending Application No. 10/676825 in view of Lucas et al. (US 6,754,884 B1). Although the conflicting claims are not identical, they are not patentably distinct from each other because they would have been obvious over the copending claims in view of the cited art.

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16. As to claims 7 and 18, in addition to the limitations of the parent claims being wholly anticipated by the copending claim as discussed above, Lucas further teaches that *the script code section is JavaScript* (see at least column 3, lines 45-55, particularly "a scripting language, such as JavaScript"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the scripting language of the copending claim 1 with the JavaScript of Lucas because JavaScript is a common scripting language.
17. As to claims 8 and 19, in addition to the limitations of the parent claims being obvious over the copending claims and cited art as discussed above, Lucas further teaches that *validating the script code section comprises generating a symbol table by executing the code section in an interpreter ("parser"), and comparing the symbol table with the implementation instruction ("XML data type declarations")* (see at least column 3, line 56 through column 4 line 7, particularly: "a JavaScript-aware parser (e.g. parser 105) is equipped to recognize XML data type declarations and associate them with the appropriate items in the corresponding symbol table"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the validation of the copending claim 1 with the validation using the symbol table of Lucas because it would allow validating a script-based web service with XML constraints (column 3 lines 45-55).
18. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.



***Claim Rejections - 35 USC § 112***

19. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

20. Claims 2-5 and 13-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
21. The term "definition instructions" in claims 2, 3, 13, and 14 is used by the claim to mean "classes." However, in the specification the term "definition instructions" is used to mean instructions that are both "interfaces" (see page 2, line 2) and "classes" (see page 3 line 14). Classes and interfaces are further described in the specification as to their functionality, in a manner consistent with that known in the art. Thus, the term as used in the claims is indefinite because it is unclear which interpretation should be given to the term.
22. Similarly, the term "implementation instructions" in claims 2, 3, 13, and 14 is used by the claim to mean "interfaces." However, in the specification the term "implementation instructions" is used to mean instructions that are both "classes" (see page 2, line 3) and "interfaces" (see page 3 line 14). Thus, the term as used in the claims is indefinite because it is unclear which interpretation should be given to the term.
23. Under the principles of compact prosecution, examiner treats the definition instructions as classes, and the implementation instructions as interfaces, as set forth in the claims. In the double patenting rejection, the two claims are treated as functionally equivalent because the instructions which are classes have one function, and the instructions which are an interface have a different function.
24. Claims 4-5 and 15-16 are rejected as depending from rejected claims.

***Claim Rejections - 35 USC § 103***

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
26. Claims 1-8 and 10-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Java and XML Data Binding" (McLaughlin, 2002) in view of Lucas et al. (US 6,754,884 B1).

**Claim 1**

McLaughlin teaches *a computer-implemented method for validating computer code* (see at least section 3.1.4, Figure 3-1 validating Binding schema against DTD). McLaughlin further teaches *providing a computer program by defining at least one set of definition instructions* ("XML document") and *at least one set of implementation instructions* ("constraint model") (see at least section 3.1.1). McLaughlin further teaches *validating the set of definition instructions* ("XML document") and *the set of implementation instructions* ("constraint model") *using a validation tool* (see at least section 3.1.1, particularly "ensure that your constraint model syntax is supported by the binding framework you want to use" and "Write several XML documents ... and validate them against your new constraints.")

McLaughlin further teaches a computer program comprises other web services (see at least section 1.2.2, particularly "web services"). However, McLaughlin does not explicitly teach a script code section. Lucas teaches *a script code section* (see at least column 3, lines 45-55, particularly "XML-oriented language extensions for use in association with a scripting language"). Lucas further teaches *validating the script code* ("JavaScript") *section using the set of implementation instructions* ("XML data type declarations") (see at least column 3, line 56 through column 4 line 7, particularly: "a JavaScript-aware parser (e.g. parser 105) is equipped to recognize XML data type declarations and associate them with the appropriate items in the

corresponding symbol table"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the constraint model of McLaughlin with the script code validation of Lucas because it would allow XML constraints to be used and tested with a script-based web service (see at least McLaughlin section 1.2.2 and Lucas column 3 lines 45-55).

#### **Claim 2**

Claim 2 includes all of the limitations of claim 1. McLaughlin further teaches *the set of definition instructions are classes* (see at least section 2.3.1, particularly "XML file" and figure 2-2 "XML documents"). It is readily apparent that XML documents are classes because they contain the functions and data of the program. McLaughlin further teaches *the set of implementation instructions are interfaces* (see at least section 2.3, particularly "XML constraints" and section 6.4.4 "Interfaces, particularly: "To generate an interface, add this statement to your binding schema"). Because XML constraints are a model of the behavior of classes ("XML document"), they are an interface.

#### **Claim 3**

Claim 3 includes all of the limitations of claim 1. McLaughlin further teaches *the set of definition instructions are converted into classes* (see at least section 3.1.4, figure 3-1 "Class generation process flow" and "The result of the generation step is one or more Java source files").

McLaughlin further teaches *the set of implementation instructions are converted into interfaces* (see at least section 6.4.4 "Interfaces", particularly "The result of this statement is a new generated class, the Person interface").

#### **Claims 4, 6, 10, and 11**

Claim 4 includes all of the limitations of claim 3. Claims 6, 10 and 11 include the limitations of claim 1. McLaughlin further teaches *the set of definition instructions* ("XML documents") *and the set of implementation instructions* ("XML constraints") *are described in XML*

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(see at least section 2.3.1 , particularly "XML file" and figure 2-2 "XML documents" and section 2.3, particularly "XML constraints"). It is readily apparent that McLaughlin teaches the files are in a tree structure because the files are XML files.

**Claim 5**

Claim 5 includes all of the limitations of claim 4. McLaughlin further teaches *the classes and the interfaces are defined in Java language* (see at least section 3.1.4, figure 3-1, particularly: "The result of the generation step is one or more Java source files").

**Claim 7**

Claim 7 includes all of the limitations of claim 1. McLaughlin further teaches a computer program comprises other web services (see at least section 1.2.2, particularly "web services"). However, McLaughlin does not explicitly teach a script code section. Lucas teaches *the script code section is JavaScript* (see at least column 3, lines 45-55, particularly "a scripting language, such as JavaScript"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the constraint model of McLaughlin with the JavaScript script code validation of Lucas because it would allow XML constraints to be used and tested with a script-based web service (see at least McLaughlin section 1.2.2 and Lucas column 3 lines 45-55).

**Claim 8**

Claim 8 includes all of the limitations of claim 1. McLaughlin further teaches *validating the script code section comprises generating a symbol table by executing the code section in an interpreter ("parser"), and comparing the symbol table with the implementation instruction ("XML data type declarations")* (see at least column 3, line 56 through column 4 line 7, particularly: "a JavaScript-aware parser (e.g. parser 105) is equipped to recognize XML data type declarations and associate them with the appropriate items in the corresponding symbol table"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the

constraint model of McLaughlin with the script code validation of Lucas because it would allow validating a script-based web service with XML constraints (see at least McLaughlin section 1.2.2 and Lucas column 3 lines 45-55).

#### **Claims 12-21**

Claims 12-21 are a computer readable medium version, which otherwise recites the same limitations of the claims 1-8 and 10-11. The combination of McLaughlin and Lucas teaches all of the limitations of claims 1-8 and 10-11. It is readily apparent that the method taught by McLaughlin includes instructions to implement the method on a computer readable medium (see, for example, section 3.1 step 4, "compile the classes").

#### ***Cited Prior Art***

27. Hammerich et al. (US PG-PUB 2004/0123273 A1, hereafter '273) is cited as claiming priority to the same European application (EP 02022042.2). Hammerich et al. (US 7,584,457) is cited as being a granted patent from application '273.
28. **Examiner's Note:** The Examiner has pointed out particular references contained in the prior art of record within the body of this action for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply. Applicant, in preparing the response, should consider fully the entire reference as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

#### ***Conclusion***

29. Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Erika Kretzmer** whose telephone number is **(571) 270-5554**. The Examiner can normally be reached

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Monday through Thursday, 9:30am-6:00pm Eastern Time. If attempts to reach the examiner are unsuccessful, the Examiner's supervisor, **Tuan Dam** can be reached at (571) 272-3695.

30. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair> . Please direct questions on access to the Private PAIR system to the Electronic Business Center (EBC) at 866.217.9197 (toll-free).

31. Any response to this action should be mailed to:

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or faxed to 571-273-8300. Hand delivered responses should be brought to the United States Patent and Trademark Office Customer Service Window:

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Examiner, Art Unit 2192

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